

App. No. 10/575,214
Office Action Dated December 31, 2008

REMARKS

Favorable reconsideration is respectfully requested in view of the above amendments and following remarks. Applicant appreciates the courtesy shown by Examiner Hobbs in discussing this case with Applicant's representative on June 18, 2009. The discussions of the interview are reflected in the following remarks.

Claims 2, 3, 5-7, 9-16 and 18 have been amended editorially. Claim 1 has been canceled without prejudice or disclaimer. Claim 22 is new, and is supported by the original specification, for example by page 7, lines 5-20 of the specification. Applicants request that non-elected claims 18-21 be reinstated for allowance if claim 22 is found allowable. Claims 2-17 and 22 are pending. No new matter has been added.

Claim rejections - 35 U.S.C. § 102

Claims 1, 3, 4, 8-13 and 16 are rejected under 35 USC 102(b) as being anticipated by WO 2003/033729 (Arkray, Inc.; hereinafter, EP 1443115A1 will be used for citation). Applicant respectfully traverses the rejection.

Claim 22 generally tracks claim 1, which has been canceled. Claim 22 is directed to a method of reducing an influence of a non-analyte glycated amine during a determination of an amount of a glycated protein as an analyte. Claim 22 recites (a) pretreating a sample by adding a fructosyl amino acid oxidase (FAOD) to the sample so that the FAOD acts on a non-analyte glycated amine that is present in the sample and different from a glycated protein as an analyte, thereby reducing an influence of the non-analyte glycated amine on a determination of an amount of the glycated protein as the analyte. Claim 22 further recites (b) adding a protease to the sample, thereby degrading the glycated protein as the analyte contained in the sample with the protease. Claim 22 also recites (c) after step (b), causing a redox reaction to occur without adding an additional amount of the FAOD or a separate FAOD so that in the redox reaction, FAOD added in the pretreatment acts on the degradation product of the glycated protein.

According to the method of claim 22, the accuracy of measuring the glycated protein as an analyte can be improved by reducing the influence of the non-analyte glycated amine during the determination of the amount of the glycated protein as an analyte (see page 6, lines 3-17 of the specification). Moreover, the method of claim 22 enables highly reliable

App. No. 10/575,214
Office Action Dated December 31, 2008

measurement of the glycated amine easily and conveniently (see page 6, lines 17-23 of the specification).

Arkray is directed to a method of pretreating a sample for measurement of a glycated amine and to a method of measuring a glycated amine (paragraph [0001]). Arkray teaches the addition of degradation FAOD as a pretreatment to remove the glycated amino acid or the glycated peptide present in the sample other than the glycated amine as the analyte by degrading it (paragraph [0010]). The reference teaches that protease is added subsequently to give a degradation product of the glycated amine as the analyte (paragraphs [0016] and [0018]). The reference further teaches that an additional amount of the same FAOD or a separate FAOD is added as a measurement FAOD to cause a redox reaction (paragraphs [0014] and [0018]).

On the other hand, claim 22 recites after adding the protease, causing a redox reaction to occur without adding an additional amount of the FAOD or a separate FAOD so that in the redox reaction, FAOD added in the pretreatment acts on the degradation product of the glycated protein. Nothing in the reference teaches or suggests the features of claim 22. In fact, Arkray indicates that continued activity of the degradation FAOD after the protease treatment may deteriorate the accuracy of the measurement and teaches the inactivation of the degradation FAOD at the time of or before the addition of the protease so that the degradation FAOD does not act on the degradation product of the glycated protein (paragraph [0019]), thereby leading away from the features of claim 22. Accordingly, claim 22 and the dependent claims therefrom are patentable over Arkray.

Claim rejections - 35 U.S.C. § 103

Claims 1-17 are rejected under 35 USC 103(a) as being unpatentable over Arkray in view of US 2002/0025546 (Komori et al.). Applicant respectfully traverses the rejection.

Claim 22 has been distinguished above. Komori does not remedy the deficiencies of Komori. In particular, Komori is directed to using FAODs as a part of an enzyme-based sensor that employs the FAOD in sensing a glycated amino acid or glycated peptide as an analyte so that the amount of the glycated amino acid or glycated peptide is measured (see, e.g., paragraphs [0004], [0029] and [0030]). Nothing in the reference teaches or suggests pretreating a sample with FAOD before adding a protease so that the FAOD acts on a non-analyte glycated amine that is present in the sample and different from a glycated protein as

App. No. 10/575,214
Office Action Dated December 31, 2008

an analyte, thereby reducing an influence of the non-analyte glycated amine on a determination of an amount of the glycated protein as the analyte, as recited in claim 22. Accordingly, claim 22 and the dependent claims therefrom are patentable over the references, taken alone or together.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions or concerns regarding this communication can be directed to the attorney-of-record, Douglas P. Mueller, Reg. No. 30,300, at (612) 455.3804.



Dated: Jun 26, 2009

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

By:


Douglas P. Mueller
Reg. No. 30,300